Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A phase-compensating cube corner retroreflector, comprising:

an entrance/exit face devoid of any phase-compensating film stack;

a first rear reflecting face;

a phase-compensating film stack atop the first rear reflecting face, wherein the ~~first~~ phase-compensating film stack induces $2n\pi$ phase difference in light upon reflection, wherein n is [[an]] any integer including 0;

a second rear reflecting face devoid of any phase-compensating film stack;

a third rear reflecting face;

another phase-compensating film stack atop the third rear reflecting face, wherein said another phase-compensating film stack induces the $2n\pi$ phase difference in light upon reflection;

wherein light enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 2 (original): The retroreflector of claim 1, wherein the phase-compensating film stack and said another phase-compensating film stack each comprises a stack of thin films wherein reflections from the thin films interfere to induce the $2n\pi$ phase difference, and an interface between the last film and air provides total internal reflection.

Claim 3 (currently amended): A phase-compensating cube corner retroreflector, comprising:

an entrance/exit face;

a first rear reflecting face;

a phase-compensating film stack atop the first rear reflecting face, wherein the phase-compensating film stack induces $2n\pi$ phase difference in light upon reflection, wherein n is any integer including 0;

a second rear reflecting face devoid of any phase-compensating film stack;

a third rear reflecting face;

another phase-compensating film stack atop the third rear reflecting face, wherein said another phase-compensating film stack induces the $2n\pi$ phase difference in light upon reflection;

wherein light enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity;

~~The retroreflector of claim 1,~~ wherein the phase-compensating film stack and said another phase-compensating stack each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of silicon dioxide having an optical thickness of approximately 815 nm;

a second layer atop the first layer, the second layer comprising titanium dioxide having an optical thickness of approximately 1066 nm;

a third layer atop the second layer, the third layer comprising silicon dioxide having an optical thickness of approximately 1090 nm; and

a fourth layer atop the third layer, the fourth layer comprises titanium dioxide having an optical thickness of approximately 1702 nm.

Claim 4 (currently amended): A phase-compensating cube corner retroreflector, comprising:

an entrance/exit face;

a first rear reflecting face;

a phase-compensating film stack atop the first rear reflecting face, wherein the phase-compensating film stack induces $2n\pi$ phase difference in light upon reflection, wherein n is any integer including 0;

a second rear reflecting face devoid of any phase-compensating film stack;

a third rear reflecting face;

another phase-compensating film stack atop the third rear reflecting face, wherein said another phase-compensating film stack induces the $2n\pi$ phase difference in light upon reflection;

wherein light enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity;

~~The retroreflector of claim 1,~~ wherein the phase-compensating film stack and said another phase-compensating stack each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of magnesium dioxide having an optical thickness of approximately 715 nm; and

a second layer atop the first layer, the second layer comprising titanium dioxide having an optical thickness of approximately 1903 nm.

Claim 5 (currently amended): A phase-compensating cube corner retroreflector, comprising:

an entrance/exit face;

a first rear reflecting face;

a phase-compensating film stack atop the first rear reflecting face, wherein the phase-compensating film stack induces $2n\pi$ phase difference in light upon reflection, wherein n is any integer including 0;

a second rear reflecting face devoid of any phase-compensating film stack;

a third rear reflecting face;

another phase-compensating film stack atop the third rear reflecting face, wherein said another phase-compensating film stack induces the $2n\pi$ phase difference in light upon reflection;

wherein light enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity;

~~The retroreflector of claim 1,~~ wherein the phase-compensating film stack and said another phase-compensating stack each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of titanium dioxide having an optical thickness of approximately 262.5 nm;

a second layer atop the first layer, the second layer comprising silicon dioxide having an optical thickness of approximately 346.5 nm;

a third layer atop the second layer, the third layer comprising titanium dioxide having an optical thickness of approximately 1018.5 nm;

a fourth layer atop the third layer, the fourth layer comprises silicon dioxide having an optical thickness of approximately 462 nm; and

a fifth layer atop the fourth layer, the fifth layer comprising titanium dioxide having an optical thickness of approximately 850.5 nm.

Claim 6 (withdrawn): An optical system, comprising:

a polarizing beam-splitter that separates an input beam into at least one output beam having a specific polarization state; and

a cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks each induces $n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein the output beam travels in a path comprising the cube corner retroreflector and the polarizing beam-splitter, and the output beam enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 7 (withdrawn): The system of claim 6, wherein the cube corner retroreflector comprises a first rear reflecting surface and a third rear reflecting surface with the phase-compensating film stacks, and a second rear reflecting surface devoid of any phase-compensating film stack.

Claim 8 (withdrawn): The system of claim 7, wherein the phase-compensating film stacks each comprises a stack of thin films wherein reflections from the thin films interfere to induce $2n\pi$ phase difference where n is [[an]] any integer including 0, and an interface between the last film in each phase-compensating film stack and air provides total internal reflection.

Claim 9 (withdrawn): The system of claim 6, wherein the phase-compensating film stacks each

comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of silicon dioxide having an optical thickness of approximately 815 nm;

a second layer atop the first layer, the second layer comprising titanium dioxide having an optical thickness of approximately 1066 nm;

a third layer atop the second layer, the third layer comprising silicon dioxide having an optical thickness of approximately 1090 nm; and

a fourth layer atop the third layer, the fourth layer comprises titanium dioxide having an optical thickness of approximately 1702 nm.

Claim 10 (withdrawn): The system of claim 6, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of titanium dioxide having an optical thickness of approximately 1316 nm;

a second layer atop the first layer, the second layer comprising silicon dioxide having an optical thickness of approximately 1279 nm; and

a third layer atop the second layer, the third layer comprising titanium dioxide having an optical thickness of approximately 2595 nm.

Claim 11 (withdrawn): The system of claim 6, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of magnesium dioxide having an optical thickness of approximately 715 nm; and

a second layer atop the first layer, the second layer comprising titanium dioxide having an optical thickness of approximately 1903 nm.

Claim 12 (withdrawn): The system of claim 6, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of titanium dioxide having an optical thickness of approximately 262.5 nm;

a second layer atop the first layer, the second layer comprising silicon dioxide having an optical thickness of approximately 346.5 nm;

a third layer atop the second layer, the third layer comprising titanium dioxide having an optical thickness of approximately 1018.5 nm;

a fourth layer atop the third layer, the fourth layer comprises silicon dioxide having an optical thickness of approximately 462 nm; and

a fifth layer atop the fourth layer, the fifth layer comprising titanium dioxide having an optical thickness of approximately 850.5 nm.

Claim 13 (withdrawn): An optical system, comprising:

a polarizing beam-splitter that separates an input beam into at least one output beam having a specific polarization state;

a quarter-wave plate devoid of any phase-compensating film stack;

a cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting faces with phase-compensating film stacks, the phase-compensating film stacks each induces $2n\pi$ phase difference in light upon reflection and n being ayn integer including 0;

wherein (a) the output beam travels in a path comprising the quarter-wave plate, the cube corner retroreflector, the quarter-wave plate, and the polarizing beam-splitter, and (b) the output beam enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 14 (withdrawn): The system of claim 13, wherein ~~the phase-compensating film stacks each comprises a stack of thin films wherein reflections from the thin films interfere to induce $2n\pi$ phase difference where n is an integer including 0, and~~ an interface between the last film in each phase compensating film stack and air provides total internal reflection.

Claim 15 (withdrawn): The system of claim 13, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of silicon dioxide having an optical thickness of approximately 815 nm;

a second layer atop the first layer, the second layer comprising titanium dioxide having an optical thickness of approximately 1066 nm;

a third layer atop the second layer, the third layer comprising silicon dioxide having an optical thickness of approximately 1090 nm; and

a fourth layer atop the third layer, the fourth layer comprises titanium dioxide having an optical thickness of approximately 1702 nm.

Claim 16 (withdrawn): The system of claim 13, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of magnesium dioxide having an optical thickness of approximately 715 nm; and

a second layer atop the first layer, the second layer comprising titanium dioxide having an optical thickness of approximately 1903 nm.

Claim 17 (withdrawn): The system of claim 13, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of titanium dioxide having an optical thickness of approximately 262.5 nm;

a second layer atop the first layer, the second layer comprising silicon dioxide having an optical thickness of approximately 346.5 nm;

a third layer atop the second layer, the third layer comprising titanium dioxide having an optical thickness of approximately 1018.5 nm;

a fourth layer atop the third layer, the fourth layer comprises silicon dioxide having an optical thickness of approximately 462 nm; and

a fifth layer atop the fourth layer, the fifth layer comprising titanium dioxide having an optical thickness of approximately 850.5 nm.

Claim 18 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first quarter-wave plate devoid of any phase-compensating film stack;

a measurement mirror mounted to a moving component to be measured;

a cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks each inducing $n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, the polarizing beam-splitter, the cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, and the polarizing beam-splitter, and (b) the measurement beam enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity;

a second quarter-wave plate devoid of any phase-compensating film stack;

a reference mirror; [[,]]

wherein (a) the reference beam travels in a reference path comprising the second quarter-wave plate, the reference mirror, the second quarter-wave plate, the polarizing beam-splitter, the cube corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the reference mirror, the second quarter-wave plate, and the polarizing beam-splitter, and (b) the reference beam enters and exits the cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 19 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first quarter-wave plate devoid of any phase-compensating film stack;

a first cube corner retroreflector mounted to a moving component to be measured, the first cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting surfaces with phase-compensating

film stacks, the phase-compensating film stacks in the first cube corner retroreflector each inducing 2nπ phase difference in light upon reflection and n being any integer including 0;

a second cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film ~~stack~~ stacks, the phase-compensating film stacks in the second cube corner retroreflector each inducing nπ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first quarter-wave plate, the first cube corner retroreflector, the first quarter-wave plate, the polarizing beam-splitter, the second cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the first cube corner retroreflector, the first quarter-wave plate, and the polarizing beam-splitter, and (b) the measurement beam enters and exits the first and the second cube corner retroreflectors with substantially the same polarization orientation and substantially the same polarization ellipticity;

a second quarter-wave plate devoid of any phase-compensating film stack;

a reference mirror; [[,]]

wherein (a) the reference beam travels in a reference path comprising the second quarter-wave plate, the reference mirror, the second quarter-wave plate, the polarizing beam-splitter, the second cube corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the reference mirror, the second quarter-wave plate, and the polarizing beam-splitter, and (b) the reference beam enters and exits the second cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 20 (withdrawn): The system of claim 19, wherein ~~the phase-compensating film stacks of the first cube corner retroreflector each comprises a stack of thin films wherein reflections from the thin films interfere to induce 2nπ phase difference where n an integer including 0, and~~ an interface between the last film in each phase compensating film stack and air provides total internal reflection.

Claim 21 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first quarter-wave plate devoid of any phase-compensating film stack;

a first cube corner retroreflector and a second cube corner retroreflector mounted to a movable component to be measured, the first and the second cube corner retroreflectors each comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the first and the second cube corner retroreflectors each inducing $2n\pi$ phase difference in light upon reflection and n being any integer including 0;

a third cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the third cube corner retroreflector each inducing $n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first quarter-wave plate, the first cube corner retroreflector, the first quarter-wave plate, the polarizing beam-splitter, the third cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the second cube corner retroreflector, the first quarter-wave plate, and the polarizing beam-splitter, and (b) the measurement beam enters and exits the first, the second, and the third cube corner retroreflectors with substantially the same polarization orientation and substantially the same polarization ellipticity;

a second quarter-wave plate devoid of any phase-compensating film stack;

a reference mirror; [[,]]

wherein (a) the reference beam travels in a reference path comprising the second quarter-wave plate, the reference mirror, the second quarter-wave plate, the polarizing beam-splitter, the ~~second~~ third corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the reference mirror, the second quarter-wave plate, and the polarizing beam-splitter, and (b) the reference beam enters and exits the third cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 22 (withdrawn): The system of claim 21, wherein ~~the phase-compensating film stacks of the first and the second cube corner retroreflectors each comprises a stack of thin films wherein reflections from the thin films interfere to induce $2n\pi$ phase difference where n is an integer~~

~~including 0, and~~ an interface between the last film in each phase-compensating film stack and air provides total internal reflection.

Claim 23 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first quarter-wave plate devoid of any phase-compensating film stack;

a measurement mirror mounted to a moving component to be measured;

a second quarter-wave plate devoid of any phase-compensating film stack;

a first cube corner retroreflector, a second cube corner retroreflector, and a third cube corner retroreflector each comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the first and the third cube corner retroreflectors each inducing $n\pi$ phase difference in light upon reflection and n being any integer including 0, the phase-compensating film stacks in the second cube corner retroreflector each inducing $2n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, the polarizing beam-splitter, the first cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, the polarizing beam-splitter, the second quarter-wave plate, the second cube corner retroreflector, the second quarter-wave plate, the polarizing beam-splitter, the third cube corner retroreflector, and the polarizing beam-splitter, and (b) the measurement beam enters and exits the first, the second, and the third cube corner retroreflectors with substantially the same polarization orientation and substantially the same polarization ellipticity;

a reference mirror; [[,]]

wherein (a) the reference beam travels in a reference path comprising the third cube corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the second cube corner retroreflector, the second quarter-wave plate, the polarizing beam-splitter, the first quarter-wave plate, the reference mirror, the first quarter-wave plate, the polarizing beam-

splitter, the first cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the reference mirror, the first quarter-wave plate, and the polarizing beam-splitter, and (b) the reference beam enters and exits the first, the second, and the third cube corner retroreflectors with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 24 (withdrawn): The system of claim 23, wherein ~~the phase-compensating film stacks of the second cube corner each comprises a stack of thin films wherein reflections from the thin films interfere to induce 2nπ phase difference where n is an integer including 0, and~~ an interface between the last film in each phase compensating film stack and air provides total internal reflection.

Claim 25 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first quarter-wave plate devoid of any phase-compensating film stack;

a first cube corner retroreflector mounted to a moving component to be measured, the first cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the first cube corner retroreflector each inducing $2n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first quarter-wave plate, the first cube corner retroreflector, the first quarter-wave plate, and the polarizing beam-splitter, and (b) the measurement beam enters and exits the first cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity;

a second quarter-wave plate devoid of any phase-compensating film stack; and

a second cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the second cube corner retroreflector each inducing $2n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the reference beam travels in a reference path comprising the second quarter-wave plate, the second cube corner retroreflector, the second quarter-wave plate, and the polarizing beam-splitter, and (b) the reference beam enters and exits the second cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 26 (withdrawn): The system of claim 25, wherein ~~the phase-compensating film stacks of the first and the second cube corner retroreflectors each comprises a stack of thin films wherein reflections from the thin films interfere to induce $2n\pi$ phase difference where n is an integer including 0, and~~ an interface between the last film in each phase-compensating film stack and air provides total internal reflection.

Claim 27 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first quarter-wave plate devoid of any phase-compensating film stack;

a measurement mirror mounted to a moving component to be measured;

a first cube corner retroreflector, comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) three rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the first cube corner retroreflector each inducing $2n\pi$ phase difference in light upon reflection and n being any integer including 0;

a second cube corner retroreflector, comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the second cube corner retroreflector each inducing $n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, the polarizing beam-splitter, the first cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, the polarizing beam-splitter, the second cube corner retroreflector, the polarizing beam-splitter, the first quarter-wave plate, the measurement mirror, the first quarter-wave plate, the polarizing beam-splitter, the first cube corner retroreflector, the polarizing beam-splitter, the first

quarter-wave plate, the measurement mirror, the first quarter-wave plate, and the polarizing beam-splitter, and (b) the measurement beam enters and exits the first and the second cube corner retroreflectors with substantially the same polarization orientation and substantially the same polarization ellipticity;

a second quarter-wave plate devoid of any phase-compensating film stack; and

a reference mirror; [[,]]

wherein (a) the reference beam travels in a reference path comprising the second quarter-wave plate, the reference mirror, the second quarter-wave plate, the polarizing beam-splitter, the first cube corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the reference mirror, the second quarter-wave plate, the polarizing beam-splitter, the second cube corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the reference mirror, the second quarter-wave plate, the polarizing beam-splitter, the first cube corner retroreflector, the polarizing beam-splitter, the second quarter-wave plate, the reference mirror, the second quarter-wave plate, and the polarizing beam-splitter, and (b) the reference beam enters and exits the first and the second cube corner retroreflectors with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 28 (withdrawn): The system of claim 27, wherein ~~the phase-compensating film stacks of the the second cube corner retroreflector each comprises a stack of thin films wherein reflections from the thin films interfere to induce 2nπ phase difference where n is an integer including 0, and~~ an interface between the last film in each phase-compensating film stack and air provides total internal reflection.

Claim 29 (withdrawn): An interferometry system, comprising:

a polarizing beam-splitter that separates an input beam into a measurement beam having a first polarization and a reference beam having a second polarization;

a first cube corner retroreflector mounted to a moving component to be measured, the first cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the first cube corner retroreflector each inducing $n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the measurement beam travels in a measurement path comprising the first cube corner retroreflector and the polarizing beam-splitter, and (b) the measurement beam enters and exits the first cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity; and

a second cube corner retroreflector comprising (a) an entrance/exit face devoid of any phase-compensating film stack and (b) at least two rear reflecting surfaces with phase-compensating film stacks, the phase-compensating film stacks in the second cube corner retroreflector each inducing $2n\pi$ phase difference in light upon reflection and n being any integer including 0;

wherein (a) the reference beam travels in a reference path comprising the second cube corner retroreflector and the polarizing beam-splitter, and (b) the reference beam enters and exits the second cube corner retroreflector with substantially the same polarization orientation and substantially the same polarization ellipticity.

Claim 30 (new): The system of claim 13, wherein the phase-compensating film stacks each comprises:

a first layer atop the corresponding reflecting face, the first layer comprising of titanium dioxide having an optical thickness of approximately 1316 nm;

a second layer atop the first layer, the second layer comprising silicon dioxide having an optical thickness of approximately 1279 nm; and

a third layer atop the second layer, the third layer comprising titanium dioxide having an optical thickness of approximately 2595 nm.